

The shoulder (Figure 1) is a ball and socket joint that allows a wide range of movement. The humeral head is the ball, and the glenoid is the socket. A soft tissue structure called the labrum deepens the shoulder joint. The glenoid is shallow like a golf tee. There is little stability that occurs from the shape of the bones. Most stability of the joint occurs through the labrum, capsule, and rotator cuff muscles. Injury or degradation of these structures can result in shoulder pain.

Common shoulder symptoms include:

- Pain with movement
- Difficulty lifting the arm overhead
- Night pain, or pain while laying on the affected shoulder
- Weakness of the shoulder muscles
- Stiffness

Causes

There are many causes of shoulder pain. Some of the most common include:

Shoulder Arthritis

Shoulder arthritis is the loss of cartilage on the humeral head and glenoid. This causes pain and stiffness. In addition to osteoarthritis, chronic rotator cuff tears lead to shoulder arthritis. A dislocated shoulder can also lead to arthritis from the impact of the ball on the socket. Another joint nearby, the acromioclavicular joint, may also cause arthritic pain. This is the joint formed between part of the shoulder blade (scapula) and the collarbone (clavicle). Arthritis in this joint often causes pain when the arm is brought across the chest. Pain is more on top of the shoulder.

Frozen Shoulder

Adhesive Capsulitis, known as frozen shoulder, is caused by tightness of the shoulder capsule. The capsule is the inner lining of the shoulder. When the capsule is inflamed and tight, it can cause pain and loss of movement in the shoulder. There are typically three phases to the condition, each of which can last several months. This problem can take a long time to improve. Therapy is a main type of treatment. Therapy can preserve and increase motion. Steroid injections (also known as a cortisone shot) can be used as well. If the motion loss is severe and not improving after months of therapy, surgery may be considered. During surgery, tight capsular structures are cut to permit more motion. After surgery, additional therapy will be needed.

Dislocated Shoulder

Dislocation of the shoulder joint can be caused by an athletic injury or a fall. The ball of the shoulder (humeral head) slides out of the socket. Many times, this leads to a labral and capsular tear. There may be an indentation in the humeral head from either the dislocation or reduction. This shape changes, and the lack of healing of the soft tissue can lead to repeat dislocations. This is very common in young patients. Early surgical repair of the torn soft tissues can help preserve the cartilage and prevent further injury. Middle aged and older adults have a much lower repeat dislocation rate. Therefore, the older

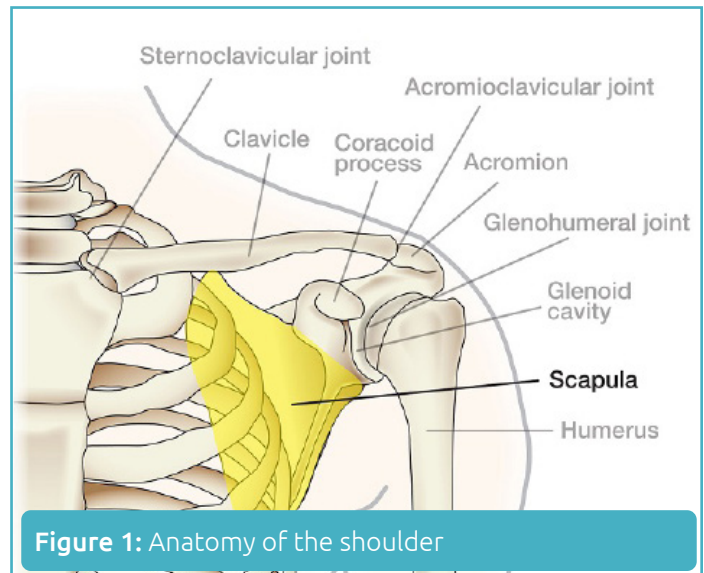


Figure 1: Anatomy of the shoulder

the patient the more likely the dislocation can be treated without surgery, using a sling, getting rest, and practicing gentle exercises.

Shoulder Fractures

An injury to the shoulder may lead to a fracture (broken bone). The ball, socket or shoulder blade can be fractured. Many of these fractures can be treated without surgery using a sling and gentle arm swinging exercises. Some fractures, however, may require surgery to realign and/or stabilize the fracture. Shoulder fractures are diagnosed with an x-ray. Depending on the fracture pattern seen on the x-ray, advanced imaging such as a CT or MRI may be needed.

Rotator Cuff Injuries

The rotator cuff is where the four tendons surround the ball (humeral head). The rotator cuff muscles start on the scapula and attach to the humerus to move the shoulder. The supraspinatus, infraspinatus, teres major, and teres minor make up the rotator cuff. The deltoid is another important shoulder muscle. Tendinitis or tears in the rotator cuff tendons may lead to shoulder pain. Partial or full thickness tears that do not improve with non-surgical treatment may require surgery. Many times, imaging with ultrasound or MRI can help define the severity of the tendon tear and whether the tendon is retracted from its expected location, and determine the quality of the muscle. Surgery may involve arthroscopy, which is a technique that uses small incisions to place an angled camera and instruments in the joint.

Treatment

For many of the problems above, treatment options for shoulder pain vary depending on the diagnosis. Treatments may include activity modification, oral medication, steroid injections, physical therapy, or surgery.

If you are experiencing shoulder pain, contact your doctor. Because treatment varies depending on the reason for the shoulder pain, an in-office evaluation is typically necessary.